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ON THE PROTECTION ACQUIRED BY THE HUMAN SKIN AND OTHER TISSUES AGAINST THE ACTION OF CERTAIN ANIMAL POISONS AFTER REPEATED INOCULATION.

Read before the Boston Society of Medical Sciences, Oct. 3, 1871.* By JAMES C. WHITE, M.D.

THE law of more or less permanent and perfect protection against the subsequent action of many morbific agencies after primary inoculation is well recognized, although in no degree satisfactorily understood. The infrequent recurrence of the exanthemata in the same individual; the great immunity of variolized persons from a repetition of the process; the still rarer repetition of syphilis, so rare that its possibility was long denied; the accepted theory of the influence of acclimatization, so called, over the action of miasmata; are sufficiently obvious illustrations of it. Perhaps, too, the protection against the toxical action of many of the mineral and vegetable poisons, gained by long-continued and gradually increasing doses, may be mentioned as a pertinent example of the same law, though less permanent in effect than in the instances first mentioned.

The tissues and fluids of venomous snakes, as far as can be estimated by our capabilities of discernment, are identical with those of harmless species; yet a small glandular arrangement of their tissues can make from these innocuous fluids a poison in swiftness and intensity of action equalling the most deadly of those produced by the chemistry of the laboratory or vegetable kingdom. Now, strange to say, experiments conducted by most careful observers have demonstrated that this poison, so universally fatal to warm-blooded animals and all harmless serpents, when injected naturally and directly by the fangs, or artificially by the syringe, into the blood and tissues of the serpents producing it, or other individuals of the same or even allied species, produces but slight or no poisonous effect whatever. [See Dr. Fayrer's experiments, in *Edinburgh Med. Journal.* "It is fairly to be concluded," he writes, "that the cobra is not affected by the poison either of the daboia or of its own species"; and with regard to our own native poisonous serpent, the rattlesnake, Dr. S. Weir Mitchell, in the *N. Y. Medical Journal* of January, 1868, records experiments proving that it "is not susceptible of being injured by the venom of its own species."] How can we explain this immunity except by reference to this mysterious law of protection through self-inoculation, accomplished by the gradual absorption through life of minute quantities of virus. To the toxical action of all other poisons the same tissues are most delicately susceptible, as much so as those of the non-venomous serpents.

Whether man or other animals can be protected against injury from them by inoculation with their virus in quantities too small to produce serious results, or whether a person once bitten and escaping death is no longer susceptible of injury from them, are questions of great interest in this connection; but I can find no reliable data, founded on experiment, upon which they can be answered. I am permitted, however, to give an extract from a note by Prof. Wyman pertaining to the subject. * * * "I have just received your note with reference to poisonous snakes. I know of no *good* evidence that man is rendered less susceptible to their poisons by inoculation. When in Surinam I was assured by Dr. Craigin, a very intelligent and careful observer, that the negroes there practised inoculation, and were rendered safe thereby. He stated that such persons were employed to hunt venomous snakes that had found their way into houses, and that they handled the snakes with impunity. I always felt, however, that there was a defect in the evidence, and did not consider the assertion *bien constate*." This assertion of Dr. Craigin at least indicates the existence of

* See number of this JOURNAL for Oct. 26th.

a popular belief in the effective protection of inoculation.

But the animal poisons of which I would more particularly speak are not of this grave kind, and their action upon the human tissues is limited to the immediate vicinity of the point of its insertion in most cases. It is only by the multiplication of these individual points, and over considerable areas of surface, that effects in any way serious are produced. We have all had ample opportunity for personal study of the ordinary appearances produced upon the skin by the bite of a mosquito, flea, or that other and vile insect which shares with them their love of human blood. The prick of a lancet or needle, which draws the same quantity of fluid that they extract, produces but a momentary sensation of pain, and the minute wound closes by the elasticity of the tissues, or by the plastic elements which exude, and there the process ends. Not so with the lesion produced by these insects. There is first perceived a sensation of heat or itching in the part, and the hand is half-involuntarily directed to the relief of the tell-tale nerve, although not always referred to the centre of sensation at once, so that a large portion of the contiguous skin is often rubbed or scratched before the right spot is reached and temporary ease thus obtained. On looking, we see somewhere about the middle of the region we have been at work upon, and standing up in bold contrast to the reddened surface around it, a white and flattened prominence of irregularly circular outline and hard, brawny feel, which increases in size according to the amount of original irritation, external friction, and individual temperament, and finally flattens down and disappears, leaving behind only in some cases a minute spot or depression, indicating the point of insertion of the poison. This is the ordinary effect of its introduction, although there are persons fortunate enough to be possessed of envelopes either so much like leather, or so blunted in sensibility, or so little to the taste of these insects, as to be uninjured by their attacks. There are those, on the other hand, on whom these appearances are greatly exaggerated, or who exhibit in the course of twenty-four hours a repetition of the same process, as if the poison had renewed its activity, or in whom the effects are not confined to the immediate locality of the bite, but extend to large portions of the neighboring tissues, and cause great œdema and inflammation. The subjective symptoms need no description.

But under peculiar conditions quite different and much more serious lesions of the skin are produced by the bites of all these insects.

On the 28th August, a family consisting of parents and four children, the latter between 6 and 18 years of age, came to the Skin Department of the Mass. Gen. Hospital for advice. The father and mother presented upon their faces, necks, forearms and hands a very abundant outbreak of large and small papules, more or less prominent and mostly excoriated, among which were a few wheals and large vesicles. In the children, in addition to these forms of efflorescence, the whole skin of these parts was in an erythematous condition, and in the older two there were numerous pustular and furuncular, almost ecthymatous lesions. It was in the youngest two children, however, that the climax of the disturbance was developed; for upon them the process of free exudation was carried to its extreme limit in the form of very large bullæ, which were so generally distributed upon the regions above named as to give a predominant character to the whole efflorescence and constitute an apparent pemphigus of extreme grade. Some of these blebs upon the arm of the boy were more than three inches long and contained more than half an ounce of fluid. No better illustrations of the progressive passage of one form of well-defined efflorescence into another, from erythematous spot, through papule, vesicle, pustule, to furuncle, or from wheal to bleb, and of the insufficient basis their halting stages alone afford for the establishment of distinct titles in nosology could be desired. Yet this great diversity of appearances, embracing nearly every form of acute cutaneous lesion recognized, was produced by one and the same exciting cause in all the cases, viz., the bites of mosquitoes. The differences presented by the various individuals of the family were such as are consistent with the well-known greater tendency to exudation in inflammatory processes of the skin in childhood than in the same affections in adult life. The subjective symptoms in all were only slight itching, and the soreness necessarily consequent upon the gravity of the lesions. There was no constitutional disturbance.

How now shall we explain the serious and unusual effects of so simple and common a disturbing cause as mosquito bites in this instance? Similar manifestations and of as varied a type, although of much milder degree, I have often seen in indi-

vidual cases before; but the fact of six persons of one family simultaneously exhibiting such extraordinary results, shows the existence of some unusual element in the case. That element I believe to have been a want of protection against the poison of these insects through prior inoculation. The family, leaving their home in England, had arrived in Boston well and clean two weeks previous to my seeing them, and had spent that interval in lodgings in a street at the North End, where there were many mosquitoes, insects they had never seen before. Although the appearances were confined to parts exposed to their bites, they were quite unsuspicious of the cause of trouble.

Here was then a new virus inserted through hundreds of points into tissues and fluids never before impressed by its presence; unprotected, as I assume, by this mysterious influence of past contact or mixture. I am justified in my conclusion moreover, I think, from observation in many other instances. The worst cases of mosquito bites that I have been called upon to treat, serious enough to require medical advice I mean, have been in foreigners newly arrived in Boston from Europe, or in persons from other parts of the country, where our city mosquito of late summer and fall is not found.

From my own experience, I can testify as to the protection which acquaintance affords against the bites of the other two insects named. I was never bitten by a bedbug until I left my home for life at Cambridge. For some time their attacks upon me there were productive of large swellings in appearance like those of erythema nodosum, and in parts of loose texture, as the eyelids, of considerable œdema, not unlike erysipelas of those parts. Gradually, as I got used to them, as we say, an expression highly suggestive in this connection, the effects were less and less severe, and since that time the extended acquaintance with them which travel and our system of frequent change of servants in domestic life makes unavoidable, has reduced the severity of their action upon me to a mild urticarial lesion of a few hours' duration. This personal experience I know to be that of several of my friends, with whom I have spoken on the subject. Classes of persons, on the other hand, who are brought up with them as bed companions, and whose homes swarm with them, will almost always say that they don't mind them much, or are unconscious of their presence, although their young children present at first all the characteristic appearances of being severely bitten. Yet they prey upon old and young alike.

With fleas, too, my experience warrants a similar conclusion. This insect, as you know, is by no means so abundant here as in warmer regions of our own country, or in the districts of the old world most frequented by travellers. The majority of the residents of our New England villages and towns very probably have never seen or been bitten by a flea, except possibly by those of the dog or cat. To such the plague of fleas met with when they travel abroad is, perhaps, the most acute and longest remembered impression of their foreign trip. It by far outbalances the exemption from the annoyance of the bugs and mosquitoes incident to their home travel.

My first nights in the Vienna Gebärhaus under those long-wooled blankets, so well adapted to flea-breeding, were hours of torment, and after each of them my body for the next thirty-six hours was the thickly covered seat of an urticarial efflorescence of a phœnix-like type. But after a month or two I got used to the fleas, so that their bites were borne with some degree of equanimity, and the irritation caused was confined more strictly to the immediate proximity of the point of insertion and with no tendency to recur after the shortened primary sensation had passed. Those, on the other hand, brought up in daily contact with them, generally pay little heed to their attacks; and the terms *custom* or *use* applied in explanation of this latter fact, when we think to interpret them, are but the unconscious recognition of the operation of the law in question.

These data may seem insufficient to establish a theory, not, so far as I know, generally adopted hitherto; but I mainly cite my own case alone, because it has afforded me the best opportunity for close and long-continued observation, while it is fully sustained by my general experience in special practice. I offer them for the purpose of drawing from the observations of members additional facts which may confirm or refute them.

The application of this law to the insects above named assumes, of course, the power on their part to irritate the skin in some way other than mechanically; and although a study of their anatomy fails to reveal anything to explain the nature of this function, and they are not recognized as secreting a poison, the peculiar effects of their bites can be accounted for in no other way. It is a property no doubt conferred upon

them for the purpose of stimulating the circulation of the part injured and of thus bringing to them a freer flow of their desired food, which the skin resents. The prurigo-like papule, the purpuric macule, the livid and lichenoid efflorescence and the wheal, the œdematous nodule, which give an unmistakable individuality to the bite of the louse, flea, mosquito and bedbug respectively, cannot possibly be reproduced, or in any way imitated, by the puncture or laceration of the cutaneous tissues with a clean metallic instrument. They are the result of contact with some peculiar and distinct virus or irritating substance in each case, and are to be considered in this connection quite apart from the secondary and general lesions which follow upon and are caused by the subsequent scratching they excite.

If there be sufficient evidence in what I have adduced to show the possibility of adding this as another instance to the list of illustrations first mentioned of the mysterious law of protection by inoculation, it will strengthen still more the conviction that an ever-increasing number of foreign elements is engrafted upon man's normal essence as he progresses in life, which are more or less lasting and transmissible in their effects, and which essentially modify his primitive nature.

A SKETCH OF THE CASE OF THE LATE DR. LOUIS E. PARTRIDGE, OF NATICK.

By G. J. Townsend, M.D., South Natick.

Dr. Partridge, in health, was about six feet in height, of a florid complexion, light hair, inclined to grow fat, and weighed 210 lbs.; æt. 36. In early manhood he grew up tall and thin, and his friends, fearing a tendency to phthisis, took him out of school for two years, keeping him constantly in the open air during that period. He then regained his health and strength, and always seemed to be vigorous above the average. His habits were invariably good, with the single exception that he was a great smoker.

About ten years ago, he attended an autopsy of a syphilitic patient, and soon after a case of abortion, undoubtedly from syphilitic taint, as the patient had nodes, after that, substernal tenderness and aberration of intellect, &c. From one of these two cases, probably the latter, he contracted a peculiar ulcer upon his right thumb. Finding that simple means would not relieve it, and that I could not induce him to give up work, I sent him to Dr. H. J. Bigelow, who at once put him under active constitutional treatment, and sent him to the sea-shore. In two or three months, he seemed quite well again, though he had a pretty severe constitutional infection, and lost all his hair, and ever after, his hand seemed unsteady, as if he had not perfect control over any of the muscles of the forearm.

His practice increased rapidly in numbers and extent, involving long rides and much night work. In the fall of 1866, four years before his death, his friends began to notice that his manner was peculiar, he was very boastful, offensively so, at times, and was also very easily excited over a trivial matter. At the dedication of the new Masonic Temple in June, he walked with his Lodge over the whole route of the procession, and his friends then saw something strange about him, ascribing it to the heat of the sun. I was often asked if he had not had a sunstroke.

Early in July he came to me, and complained of feeling dull and inclined to somnolence, falling asleep in his carriage. Knowing that he had had a great deal of night work, I urged upon him the necessity of curtailing his practice, and of giving up his out-of-town patients, at any rate. To this he would not listen.

About the middle of July, he complained of dull headache in the forehead and at the vertex, and said that he could not sleep night or day. His prescriptions at this time were occasionally very peculiar and even unreasonable, doing some mischief and alarming his patients, while at other times his judgment seemed as good as ever.

Deeming these symptoms very serious, I gave him full doses of bromide of potash, which made him sleep, and finally persuaded him to take a vacation. He went to the White Mountains for a week or two, enjoyed himself highly, and returned apparently improved, though not fit for work. He then went to the sea-shore, and there the more formidable symptoms of his disease developed. On his return, he consulted Dr. Walker, who gave a very grave prognosis, and, I understood, considerd his symptoms as indicative of softening of the brain.

His condition at that time was as follows:

His gait, very early affected in his disease, was unsteady, staggering, like an intoxicated man, and he was constantly inclined to pitch forward. He finally lost all power over his lower extremities, though at no time was one side more paralyzed than the other. His articulation was difficult and indistinct, his tongue rolling about

as if he had no control over its muscles. There was no aphasia, he knew what he wanted to say, had the words at his command, but simply had difficulty in uttering them.

He was absent and lost at times, forgetful, repeating the same thing over and over, amusing himself with trifles, like a child, and then brightening up and saying what a fool he was. Again he would be excitable and nervous, but at no time really maniacal. He complained more or less of headache, referring it mostly to the vertex, and also of burning heat there, but the pain was never severe or acute, nor did it occur in paroxysms. It was essentially chronic in character, from beginning to end. His appetite, good at first, gradually failed, and finally, after he had lost all intellect, he ate mechanically whatever was put in his mouth, giving little or no evidence of hunger or thirst. His bowels were irregular, usually constipated, though he had frequent attacks of diarrhœa, which were very troublesome, after he lost all power over his sphincters. Towards the last, they were moved only by injections. His sexual appetite was lost very early in his case.

His organs of special sense retained their functions to an unusual degree, especially his sight and hearing were good even toward the very last.

His case progressed very slowly. From being boastful, telling me often how much more money he was making than I, with "gold-bearing bonds," &c. relating also all sorts of extravagant stories and projects, he gradually grew more quiet, amusing himself, by the hour together, cutting paper, and, though restless at first, trying to exert his gradually diminishing muscular power, he at last would sit just where he was placed, and even if he slid off on to the floor, would be just as contented there as anywhere.

In spite of every care, some months before his death an ulcer formed over the sacrum, which spread literally to a frightful extent, involving the spine as well as the soft parts, flakes of bone peeling off as well as of soft parts. At this time he had lost all feeling below his waist, and nothing that was done to the ulcer seemed to cause him the slightest inconvenience.

A short time before his death, from being quiet most of the time, he began to make a peculiar and distressing noise, night and day, so that it was necessary to give him full doses of morphine to enable the inmates of the house to rest. He sank rapidly from this time, and died quietly, about the middle of last December.

In attempting a differential diagnosis in his case, we at once recognized the symptoms as anomalous. The imaginary wealth, the great projects, the peculiar staggering gait, seemed to indicate general paralysis, and yet they were hardly pronounced enough to make it a clear case.

The rolling of the tongue, the peculiar difficulty in articulating, the tendency to stupor, with bright intervals, looked like softening. But there was no hemiplegia, no rigidity of the flexors, no convulsions, no impairment of sight or hearing.

There were periods of excitement, usually brief, but at no time any acute delirium. There was progressive loss of faculty rather than any periods of exaggeration. Indeed, I hardly think that any of us who had watched the case were prepared for the revelations of the autopsy.

The autopsy was carefully made by Dr. Lincoln, Dr. Bryant and myself being present. The following were the gross appearances:—

General emaciation extreme. Dura mater very firm, somewhat adherent to calvarium on median line; adhesion most marked on left side; firmly adherent to arachnoid for an inch and one half from the median line, on the left. Serous effusion to ʒviij. beneath arachnoid, which had a gelatinous aspect. Convolutions generally atrophied and very soft externally. Left hemisphere bulging to appearance, externally. On section of left hemisphere, a slice of ten lines in thickness opened the left ventricle, which was enormously dilated and full of serum, holding at least ʒij. The whole substance of the brain was very pale and anæmic. Right ventricle was perhaps two thirds the size of the left, and also full of serum. There was serous effusion at base of brain. The walls of the fissure of Silvius were firmly adherent on left side, free on right. Cerebellum atrophied, as, in fact, was the whole brain.

Spinal cord was very firm, almost cartilaginous, and apparently atrophied. Below medulla, the cerebellum was very soft and pultaceous.

Whole amount of serous effusion was not less than ʒxiv.

As to the other organs, the liver was enormous, and extended below the level of the umbilicus. Gall-bladder was much distended. The lungs were perfectly healthy.

The portions of the brain preserved for microscopic examination were the top of

the left hemisphere, pons and upper part of cord, cerebellum (right side), central portion of base of left hemisphere.

Dr. S. G. Webber, of Boston, very kindly consented to make the microscopical examination, and I give the results in his words:

The grey matter was much diminished in thickness. At the vertex, about one third or one fourth the usual thickness. One or two sections, in the fresh state, showed very few nerve cells.

After hardening in chromic acid, from near vertex, only a few cells of any size were seen, and they were filled with granules, *not fatty*, and but few showed a distinct nucleus. There were seen, in sections treated with glycerine, many small granular bodies, apparently nuclei with short processes, perhaps remains of nerve cells, or the intercellular tissue—neurolgia—had an increase of cell elements. There were a large number of irregular circular spaces filled with homogeneous translucent matter, containing in their centre a granular body (nucleus cells degenerated, with the nucleus remaining?).

Towards the outer edge of the convolution there seemed to be very few normal cells. Granular corpuscles were numerous, in some sections forming apparently a quarter part of the external layer of the convolution; in other parts occurring in groups. There were also more of the clear spaces with granular nucleus, towards the edge of the grey matter. Deeper towards the interior of the grey matter there were more normal cells in some sections, many especially of the long triangular cells. In some sections, however, even these seemed to be wanting.

The vessels were not varicose, nor twisted, nor tortuous. Some few had thickened walls. The perivascular spaces were enlarged quite generally. There was exudation of granular coloring matter in the perivascular spaces, with many granular bodies.

Thus we have no fatty cells—the received pathological appearances in general paralysis; no inflammatory softening, rather that of atrophy; no tubercle, and a marked, almost universal cell degeneracy, the consequence, mainly, as I receive it, of the pressure of the immense and most unusual effusion of serum—beyond anything I have ever seen in an adult.

As to causes, I have little to say, except that they were probably as chronic as the effects. There was probably no one cause, but a series: the syphilitic infection in the first place, depressing the whole tone of the system, as it always does; then a constant, ever-increasing mental strain; then the exposure to the rays of the almost vertical sun; and, lastly, very probably, the too constant use of tobacco.

There was no specific treatment of the case, as it was evident from the first that organic changes had taken place upon which medicine could have no influence.

CASE OF DEPRESSION OF THE FRONTAL BONE DURING LABOR.

By E. A. W. Harlow, M.D., Boston.

The two cases of depression of the frontal bone, recently reported in the Journal, reminded me of a similar case I had a few years ago.

The patient, about 30 years of age, was attended in her first confinement by another physician, since deceased, who delivered her, with the forceps, of a dead child. In her second labor, I attended her. The os uteri being widely dilated, though the head was high, I ruptured the membranes. The pains were strong, but for some hours the head made little or no progress. Passing my hand into the vagina, and examining the brim, I found the promontory of the sacrum projecting more than usual, thus shortening the antero-posterior diameter. Instrumental assistance was accordingly proposed, which the patient and her friends strongly resisted, she being apprehensive that fatal injury to the child might thereby result. Some time afterwards, it being found that the fœtus made no advance, and that the os uteri, especially the anterior lip, had become greatly swelled, the use of the forceps was again urged; and after another physician had been called in, who fully concurred with me respecting the importance of immediate delivery, she gave her consent. In making traction, I found it necessary to employ considerable force in order to overcome the obstruction, and in a short time a boy of the average size was born. It appeared nearly dead, but after efforts for about fifteen or twenty minutes to revive it, respiration was established.

On the left side of the forehead there was an indentation of the size of a dollar, the centre of which, the frontal eminence, was depressed about an inch from its normal position. It was not inferred that the forceps had anything to do with this condition of the bone, the mark of the instrument, which was very distinct, being on the *right* side of the forehead. The indentation was attributed to the pressure, for many hours, of the left frontal bone against the projecting

promontory of the sacrum. No attempt was made to correct the deformity.* Both mother and child did well. The last time I saw it was when it was four months old. The indentation, though improved in appearance, was not obliterated. Some months after this, I heard that the infant was dead.

On reading the reports of the cases referred to, I desired to know what time had done for the improvement of the forehead, and accordingly called upon the mother, who informed me that her infant died of cholera infantum, at the age of eleven months; that it had been a bright and healthy child, and that the indentation had become hardly noticeable.

Months of disfigurement, however, are not to be preferred to its immediate removal, provided it can be effected with safety. The complete success of Dr. Tracy, of Andover, and of Dr. Sinclair, of this city, in restoring the depressed bone to its proper place, would justify cautious trials in similar instances. It is to be hoped that future cases in which this operation is attempted will be reported.

Selected Papers.

A CASE OF SPINA BIFIDA CURED.

From the Medical Clinic of Prof. WEBER in Halle, Reported in the Berl. Klin. Wochenschrift, by Dr. CARL v. BRUNN, Clinical Assistant.

MEDICAL literature furnishes us with the history of but few cases of spina bifida resulting in cure, especially when the cavity of the tumor has been found to communicate with the spinal canal. Various operative procedures have been recommended for the removal of this deformity, but, however highly lauded at first, they have soon failed to give satisfaction and have fallen into oblivion. It cannot therefore fail to interest the profession generally, whenever, by any means, the cure of this condition is accomplished.

On the 30th of November, 1870, at the Medical Clinic of Prof. Weber, in Halle, there was presented a child 15 months old, suffering from the presence of a tumor on the back, about the size of a duck's egg. The mother's report of the origin and progress of this growth was as follows:—

At birth, the child appeared well and normally developed, with the exception of a rather large head and a small tumor, hardly the size of a hazel-nut, situated on the back at the base of the neck. This tumor was tolerably firm, painless, covered with normal skin, and perfectly tolerant of gentle pressure. It inconvenienced the child so little that the parents were entirely unconcerned with regard to it, even when, on the third day, it filled up somewhat with fluid, thereby increasing in size. For the first six months of its life, the child was perfectly well nourished, and flourished finely at the breast. At this age it was weaned, and now a change followed. The nutrition of the body was interfered with, the growth of the tumor commenced; the child, hitherto plump and good-natured, grew emaciated and fretful; the process of teething was not set up; the intellect remained undeveloped, and the little sufferer was a pitiful object to behold. At the same time the tumor, which had hitherto been stationary, began to grow, and increased in size until reaching its present formidable proportions. The skin over it became exceedingly tense and very much thinned; that over the lower two-thirds assumed a purple hue, and the fear naturally suggested itself that some fall, or accidental blow or pressure might, at any time, rupture the tumor and destroy the life of the child.

Under these circumstances, the mother was very anxious to have an operation undertaken, and persisted in her demand, even after all the risk involved had been duly set before her. Thus urged, Prof. Weber at length reluctantly consented to operate.

The condition of the child on her admission to the Clinic was as follows: She was small for her age (15 months), badly nourished and rachitic; head large, fontanelle extensively open, face flabby and old looking, neck long and thin, and the lymphatic glands on both sides swollen. The trunk, owing to existing cyphosis, was bent forward and twisted on its axis; the belly protruded and was tense; the epiphyses of the long bones were enlarged.

The tumor was attached posteriorly opposite the site of the 1st to the 3d dorsal vertebræ. It was of the size of a duck's egg, tense, elastic, of a bluish red color (only the upper fourth being covered with natural skin), and was attached to the spinal column by a pedicle about an inch and a half by half an inch in diameter. It felt

* Chailly says:—"The depression of the frontal or parietal bone sometimes takes place in new-born infants, in consequence of a difficult and protracted labor, which has required the use of the forceps; or in consequence of the compression of the cranium against a too projecting sacro-vertebral prominence. * * * There is no particular remedy for these different lesions, which nature most usually cures herself."

like a cyst with extremely thin walls and fluid contents. It was not possible to determine with certainty whether the cavity or walls of the sac contained any other elements or tissues, as, for example, nerve substance; but the low degree of sensibility, as well as the absence of any general nervous disturbances on handling or compressing the tumor, argued against such a supposition.

The question of the greatest importance, as determining the character of the growth and the probable results of an operation, was whether the cyst communicated either with the cavity of the meninges or of the spinal canal. The evidence on this point was a little conflicting, but, on the whole, went to prove that such communication did exist. Firm compression of the tumor produced no perceptible movement of the fontanelle, nor any evidence of irritation of the spinal cord or brain. On the other hand it was certainly possible, by means of gentle pressure, to effect a diminution in the size and tenseness of the tumor, which could only have been accomplished by forcing out a portion of its fluid contents into the cavity of the meninges. This could be done but slowly, showing that the channel of communication must be of very small calibre. Nevertheless, we unquestionably had to do with a case of spina bifida, a tumor resulting from arrested development and a consequent partial leaving open of the spinal canal. This, with the badly nourished and rachitic condition of the patient, gave but little to hope for as the result of operative interference.

It having been decided, however, to make the attempt, the next question was, what method of operation should be undertaken. The literature of the subject offered but little that was encouraging, and no sufficient inducement to follow exactly any one of the operations hitherto in vogue. Prof. Weber, therefore, determined on one which should combine the elements of some of those previously attempted, viz., gradually increased compression of the pedicle, accompanied by successive evacuations of the contents of the sac. By this means he hoped to bring about so gradual a necrosis of the tumor that, by the time it should fall off, the channel of communication through the pedicle would be obliterated.

The operation took place on the 2d of December, 1870. While an assistant drew the tumor as far from its bed as possible, thus elongating and narrowing the pedicle, a clamp was placed around the latter, as near as possible to the spine, and gently closed, so that the pedicle was just moderately compressed. (For this purpose, one of Hutchinson's ovarian clamps was used.) Then the canula of a Pravaz syringe was introduced, being passed obliquely through the skin, and about half the contents of the sac were withdrawn.*

In proportion as the tumor and the pedicle diminished in size, the clamp was screwed the tighter, so that after the withdrawal of a part of its contents, the tension of the cyst was kept about the same as before. Owing to the oblique introduction of the canula, not a drop of fluid followed its withdrawal, neither, of course, could any air enter.

The child bore this operation uncommonly well. No febrile reaction and no nervous disturbances followed. Therefore we did not hesitate on the next day, the tumor having become a little larger and harder, to withdraw another portion of fluid and still further tighten the clamp. This proceeding was repeated daily; the tumor collapsed, became cold, ulcerated, and, on the seventh day, fell off, carrying with it pedicle and clamp. We now had before us a granulating surface of about the size of a silver dollar, but—to our disappointment and dismay—there appeared in the centre of this space a depression from which, on the child's struggling or crying, flowed the same clear fluid which we had found in the cyst! Our plan for obliterating this channel of communication with the spinal canal had failed. The only thing that prevented the passage of air inwards through this channel was its small calibre. But the prospect for the patient was most gloomy.

We now treated the opening with cauterizations, by the ordinary means as well as by the actual cautery. The only result was a narrowing, not a closure of the opening, and a general tendency of the wound to cicatrization. Notwithstanding the continued escape of the *liquor cerebro-spinalis*, though now in less amount than at first, the general condition of the child improved, it became better nourished, no nervous symptoms appeared, and the wound began to heal kindly.

In this condition the little one was sent home on the 16th of December, two weeks after the operation and seven days after the detachment of the tumor. One month later, the mother reported as follows: "At first, the child was very weary, slept much and

* The fluid withdrawn was clear and watery in appearance, and proved to be rich in chlorides, but devoid of albumen. Under the microscope, it presented but few cells, and those were chiefly epithelial.

quietly, cared for neither food nor drink; this lasted about two weeks; then she grew livelier, began to eat, raised herself up in bed, and now often sits up for an hour at play. To-day the spot is entirely closed. Yesterday it suppurated a little, but to-day a thin skin has grown over it. There has been no discharge from the opening in the centre for the past two weeks."

Thus we see that the canal was obliterated three weeks after the detachment of the tumor, and that in two weeks more the entire surface of the wound was covered with skin.

On the 11th of March, three months and a half after the operation, the child was again presented at this clinic. A firm, hard linear cicatrix is all that now marks the former site of the tumor. And what a change in the general appearance of the little patient! The face no longer looks old and wan, but shows the round, red cheeks and the bright eyes of childhood; teeth begin to show themselves; the baby tongue begins to prattle; the abdomen is no longer distended; the extremities are growing rounded, and only the curvature of the spinal column remains of all the sad deformities which but a few months since made this child one of the most pitiable objects on earth.—*Kansas City Med. Journal.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

Oct. 9th.—*Strangulated Hernia reduced by a Sudden Shock.*—Dr. Fifield reported the case.

The hernia had been down several days, during which time the patient had had no dejection; there was considerable tenderness, and vomiting had set in. Dr. Fifield was sent for to operate, but on arriving he found that the hernia had gone back, and that the patient had had an operation of the bowels. It seems that while the patient was lying on his back in bed, a kitten that was playing in the room crawled up on to the bed-post and jumped from there on to him, which gave him such a sudden shock that the hernia went back.

Oct. 9th.—*Foreign Bodies in Trachea.*—Dr. Hodges reported the cases.

Three weeks ago, a boy entered the Mass. General Hospital. He had been playing with a cherry-stone through which he had stuck a pin, for the purpose of blowing it through a bean-blower. This stone, with the pin in it, having fallen on the floor, he put the end of the bean-blower over it in order to suck it up, and on applying his mouth at the other end, the stone was sucked up through the bean-blower and went down his windpipe. He was seized with sudden and repeated dyspnœa and cough, and could feel a sense of pricking in his trachea, which was followed by expectoration slightly tinged with blood. Tracheotomy was performed without any result, as was also the case in a second attempt. The patient went home with a tube in the tracheal opening, in the hope that at some future time the foreign body might be dislodged and coughed up, or removed.

The other case was a woman, who, while putting on her shawl, swallowed a shawl-pin with a large glass head. The same train of symptoms came on, viz., immediate dyspnœa, cough, and a sensation of the pin's moving in the trachea. Tracheotomy was done, and the pin seized with the forceps, but it could not be removed, as, having gone down head first, the point would catch in the mucous membrane whenever an attempt was made to withdraw it. Finally, after much manœuvring, it was lifted up about half way; while being held there the point was seen sticking through the skin about three-fourths of an inch below the tracheal opening. It was seized and pulled farther through, with the idea of turning the head upwards, when it broke; the point was then pulled through, and the head was seized with the forceps and extracted.

Dr. Cheever spoke of a case where an ordinary pin had been swallowed and could not be found. The tracheotomy tube was left in with the hope that it might be coughed up, but it never was. The pin was swallowed about three years ago, and quite recently the patient died with symptoms of pneumonia and abscess.

Oct. 23d.—*A Case of Acute Atrophy of the Liver.*—Dr. John Homans reported the case.

In the summer of 1868, I published a case of acute atrophy of the liver in the *American Journal of the Medical Sciences*, and I took the opportunity to add other published cases, not before collaborated, and to mention the characteristics of the disease as laid down by Frerichs and as appearing in these cases.

The only two autopsies of the disease that I have seen are the one mentioned above and one last May. Both of these

cases, curiously enough, occurred in the practice of Dr. C. C. Holmes, of Milton, Mass.

D. B., a healthy and robust boy, 18 years old, consulted Dr. Holmes at his office on the 4th of May, 1871. He then had nausea and headache, his skin was dusky-looking, conjunctivæ slightly yellow; appetite poor, but not wholly lost; no tenderness over the liver. He was able to drive out nearly every day for three weeks from this date, the skin gradually becoming more yellow, until ten days before his death (which occurred on the 28th of May) it had become intense. On the morning of the 26th he was sleepy and irritable, made an effort to go to the railroad station, but gave it up. At 2½, P.M., he was wild, screaming, kept protruding his tongue and spitting, grinding his teeth, throwing his arms about. Urine retained; no albumen. No convulsions. Bowels moved by enemata; dejections black. On the evening of the 27th the respiration became quite slow and intermittent, intervals of thirty-five or forty seconds intervening. He vomited more or less dark, bloody-looking fluid on the morning of the 28th, and died at 11, A.M.

Autopsy, 24 hours after death. Body somewhat emaciated. Skin universally jaundiced. No rigor mortis.

Head.—Brain not remarkable; black coagulated blood in longitudinal sinus.

Thorax.—A small amount of bilious-looking fluid in right pleural cavity. Heart—aorta deeply stained; no hæmorrhage in pericardium. Lungs normal; no hæmorrhagic spots.

Abdomen. Liver—gall-ducts unobstructed. Weight 24 oz. (I think, but record has been lost.) Liver small, very flabby, edge thin, cortical substance shining, and organ seen through it looks mottled; on section, the surface is rough with hæmorrhagic spots; color greenish-yellow; acini not sharply defined; disorganization mainly in the upper part of the right lobe. The microscopical examination of the liver was made by Dr. R. H. Fitz, and the following record is by him.

"The sections showed no distinction between individual acini. The surface was uniformly homogeneous, contained innumerable fat globules and granular matter, the cell-nuclei as a rule indistinct, often not to be discovered. On the surface of the section were also to be seen numerous globular, yellowish-green, opaque bodies, apparently made up of innumerable numbers of delicate radii—leucine. At times could be seen bundles of acicular crystals of tyrosine. These latter were found in large numbers on the inner coat of the hepatic vein, and could be seen by the naked eye as glistening white patches. In the fluid in which the sections were examined were seen granular detritus, fat drops, and rarely liver cells; these latter had not the normal polygonal appearance, but were more or less rounded, containing oil-globules and granular matter to such an extent that the nucleus was thereby obscured."

Stomach contained about a quart of black, tarry-looking, fluid blood. Spleen not remarkable. Kidneys not remarkable to the naked eye. The following is Dr. Fitz's account of their microscopical appearances.

"The kidneys also contained the globular masses of leucine. The epithelium of the convoluted and straight tubules was coarsely granular and opaque; hyaline casts were found in the straight tubules and the Malpighian pyramids. The epithelial cells could be easily isolated, and when thus examined were filled with granular matter and more or less yellow; the nucleus to be seen only occasionally." "The muscular fibres of the heart were also found in a similar condition of granular alteration; the granules apparently existing between the transverse striæ and often completely obscuring them."

The supra-renal capsules were deeply stained, as were all the tissues of the body, but were otherwise normal. The small intestine contained more or less dark blood in its lower part.

This disease generally attacks persons under 30 years of age, more commonly females than males. It is always fatal. In the foregoing case the length of the disease—twenty-two days—is exceptional, the fatal termination generally occurring within ten days. The nervous derangements also commonly occur sooner, but are sometimes delayed longer. The results of percussion are not given in the history of the case. The retention of urine is characteristic, as is also the maniacal delirium and restlessness and grating of the teeth. The diminution in size of the liver was remarkable, and the hæmorrhagic spots often found were well marked, but the color was not an intense rhubarb-yellow, like the case occurring in Dr. Holmes's practice four years ago, and, as I have mentioned above, the only other case I ever saw. The reader is referred to Frerichs's excellent article on acute atrophy of the liver for further information concerning this interesting and fatal disease.

Medical and Surgical Journal.

Boston: Thursday, November 9, 1871.

OPERATION FOR STRANGULATED HERNIA. SIGNS BY WHICH TO DISTINGUISH THE PRESENCE OF THE SAC OR THE INTESTINE.

In an article on Strangulated Hernia, by Friedrich Pauli, in the *Archiv für Klinische Chirurgie*, and subsequently translated into the *Bulletin de la Soc. de Med. de Gand*, we find the following rules given for operation :—

The surgeon is upon the *sac:*

1st. When the cellular or fibrous layers, as they are cut, are found only slightly thickened, due consideration being taken for the size and age of the hernia, because an old and extensive hernia has relatively thicker layers than a recent one.

2d. When, in the course of incisions, there has been no gush of hernial fluid.

3d. When the tumor presents, here and there, hour-glass furrows and depressions, this appearance being especially present in old herniæ. In such a case, the hernia itself has increased in volume mechanically, while the sac shows a hollow at the point which was originally at the ring. The inequalities observed on the surface of the tumor are a proof that the operator has not yet reached the intestine, but is on the sac only.

4th. When on the surface of the tumor, and especially at the lower and most dependent parts, transparent points are seen, indicating the presence of the hernial fluid.

5th. When the tumor presents a well-defined volume and shows no loop of intestine.

6th. When on the surface of the tumor a deposit of fat, no matter how small in extent, is observed. On the serous coat of the intestine fat is never found.

7th. When the finger, passed into the wound, cannot reach and distinguish the seat of the strangulation. There are cases, it is true, in which, after the sac is opened, it is very difficult to reach the constricted ring; but it is always possible to accomplish it with a little perseverance.

8th. When, on cutting the constricted ring from above downwards, the tumor subsides by the recession of the intestine within the abdominal cavity, while the sac remains and presents the appearance of an empty bag. At other times, however, the tumor persists without change, the intestine being held by a constricted neck of the sac which does not permit its escape within the abdomen.

9th. When the tumor is not of a glazed or polished aspect, and when its color (in proportion to the duration of the strangulation) has not passed to a dark red tint in place of the pale red peculiar to a hernial sac.

10th. When little layers or filaments of cellular tissue can be raised with the forceps from the surface of the tumor; a proceeding out of the question when one has the serous layer of the intestine.

11th. When the tumor presents a shape which is neither round nor oval nor oblong. If the form be oblong, the loop of intestine is never wanting.

The operator has *intestine* before him :—

1st. When the tumor under observation is not dented or unequal upon its surface, but presents a rounded, spherical, rarely a slightly oval shape in crural herniæ ; an oblong or pyriform shape in inguinal herniæ ; in the latter, the surface is moreover uniformly shining.

2d. When there has been a gush of hernial fluid.

3d. When a loop of intestine can be made out.

4th. When besides the tumor formed by intestine, portions of epiploon are observed.

5th. When the surface of the swelling is glistening.

6th. When its color is a bright red or a somewhat darker hue than the pale red presented usually by a sac not excessively inflamed. When the color, likewise, has assumed a brownish or grayish-black shade, or has lost its lustre, intestine is indicated, since the sac is never changed to such a degree as to entirely lose its pale red or reddish tint.

7th. When the vessels follow a transverse direction ; their course in the layers of the sac being longitudinal.

8th. It has been insisted that after the

opening of the sac, the loop of strangulated intestine thus exposed may always be drawn out a little; this, however, is founded on an error, like the theory that the hernial sac may be drawn outward by taxis. In either case, the seat of the constriction is immovable. Because if the part of the intestine which is behind or above the constriction could be drawn down, there would be no reasons, in the presence of this elasticity of the ring, why all the prolapsed part could not be replaced without cutting the ring at all. This statement that one can draw down the intestine is not therefore a proof that intestine is the part exposed. In truth, just as soon as efforts at traction cease, the sac and the intestine both quickly retract.

9th. In order to escape all doubt in the matter whether or not one has before him the intestine set free from the sac, the advice has been given by some to incise the hernial ring provisionally; this plan appears to me to be useless. What is accomplished by this enlargement of the ring? The tumor recedes; and it may consist of intestine only or of intestine still enclosed in its sac. When the empty sac remains behind after the retraction of the tumor we may be certain that we have had to do with a portion of intestine enclosed in its sac and not exposed. But when, after this incision, the tumor recedes entirely, one has no farther means of knowing whether he has been dealing with sac alone or with intestine also. For both can be returned at once, and the surgeon ought to esteem himself very fortunate if he did not regret too late his determination to reduce *en masse*. Pitha believed, erroneously, however, that the hernial tumor does not change after the ring is enlarged where the seat of the strangulation is in the sac; this condition could occur only after the sac had contracted very firm adhesions to the surrounding tissues. In the absence of these strong adhesions, it is unnecessary, after incision of the ring, to use much force to effect reduction *en masse*, a proceeding attended, with reason, with so much anxiety. (Hernia incarcerata interna.)

A comparison of all the signs which indicate the presence of intestine in a strangulated hernia with those which characterize the appearance of the sac will, we believe, enable even the unskilled operator to decide, in a given case, the condition of things under his observation.

Chicago.—By a note from Dr. J. Adams Allen, Editor of the *Chicago Medical Journal*, we learn that the Rush Medical College was entirely consumed in the great fire, and not a particle of its contents was saved. Aside from the pecuniary loss, the members of the Faculty, who had erected the college building from their own private means, found themselves thrown out of doors, with the largest class ever assembled in Chicago. Fortunately they secured a lecture room in the City Hospital, the majority of the class returned, and the lectures are once more in progress. A new edifice will be erected for the College at once.

The October number of the Journal was ready for delivery to subscribers at the time of the fire, but was consumed, together with the books of the office. The Editors will resume the publication immediately.

The following circular has been sent us by Dr. Davis, under date of Oct. 19th:—

"At a meeting of physicians held on the 17th inst., at No. 797 Wabash Avenue, of which Dr. N. S. Davis was made Chairman, and Dr. E. Andrews, Secretary, the announcement was made that communications had been received from prominent physicians of other cities, to the effect that contributions, for the relief of the suffering members of the profession here, are now awaiting the order of responsible parties to receive and disburse them; Drs. N. S. Davis, DeLaskie Miller, Ernst Schmidt, T. D. Fitch and Walter Hay were nominated and elected a permanent relief committee; the following resolutions were also adopted:

"*Resolved*, That the committee just chosen is hereby authorized to receive all donations for the relief of the respectable physicians, who are sufferers by the late fire, distribute the same at their discretion, and render a strict account, with vouchers, to any future meeting, which may be called by the Chairman, to consider the same.

"*Resolved*, That this meeting tender the cordial and heartfelt thanks of the profession of this city to their brethren in other and distant cities, for the prompt and libe-

ral offers of assistance to the many among us who have lost, by the late terrible fire, not only their homes, clothes, books and instruments, but their practice, and pledge a just use of whatever is given.

"Contributions may be forwarded at once by express, or draft on New York, to Walter Hay, M.D., Secretary Medical Relief Committee, No. 384 Michigan Avenue.

"Donations from publishing houses, instrument makers and physicians, of books, instruments or apparatus will be gratefully received, as many of our professional brethren have saved only their lives."

Dr. J. E. Tyler.—We are gratified to learn that our friend Dr. Tyler, late Superintendent of the McLean Asylum for the Insane, is about to return from Europe with his health thoroughly reëstablished. It will be of great service to this community that he intends to practise his profession in Boston, but will engage only in consultations in that branch to which he has hitherto devoted his life.

What to do with Leeches that have been Used.—A correspondent asks what shall be done with leeches which have once performed their duty. To a physician in the country such a query is of more importance than to a physician in the city; the former is often obliged to use a second hand article, while the latter orders fresh. The only method of relieving the leech of blood is of course to induce him to disgorge it, or allow him to digest it. Many practitioners "strip" the leech, or else cause them to disgorge by means of salt. Such treatment, if it does not cause their speedy death, generally renders them unfit for a second application. Both methods are barbarous. We think by far the preferable method is that employed by our correspondent; we give his words:—

"My mode of treatment is the following. I never 'strip' them or cause them to vomit. I let them enjoy their fill of human gore, keeping them in cold spring water, which is changed regularly every day. In a few weeks' time their meal is all digested and they are ready for a fresh application. I have never known them to die when treated in this way. What is the experience of others? H."

Medical Expertism. *Mr. Editor,*—What shall be said of the administration of justice in our courts in view of such a case as the following? A "regular" doctor testified in one of our courts a short time since—we will not say where or when—that the pain in an ordinary attack of gonorrhœa was so severe that the patient was often obliged to expose his person, on the streets or wherever he happened to be, and endeavor to relieve the irritation by manipulating his genital organs! This opinion was given by an "expert" in a trial for an "indecent exposure of person." Who wonders that the testimony of a physician makes a very light weight in the balances of justice! XX.

A Question of Priority.—We have received the following letter from J. S. Lombard, M.D., late Assistant Professor of Physiology in Harvard University:—

I wish to call attention to an error in the last of Prof. Moritz Schiff's excellent articles entitled, "Recherches sur l' Echauffement des Nerfs et des Centres Nerveux à la suite des Irritations Sensorielles et Sensitives," published in the *Archives de Physiologie Normale et Pathologique*, July and August, 1870.

In speaking of the investigations which I have made on the relation between various mental conditions and the temperature of the head, Prof. Schiff claims priority in the discovery of the facts announced by me. He says that he has not seen the original paper, but knows my experiments only by the analysis of them which appeared in the *Archives de Physiologie* of September, 1868. He then states that, as early as the winter of 1867–'68, he communicated his principal results and his method to the Museum of Natural History of Florence, and that the Italian journals published short extracts of them in April and May of 1868. Herein rests his claim to priority. Prof. Schiff evidently supposes that my original paper had appeared but a short time before the analysis in the *Archives*; but, on the contrary, my researches had all been published in the *New York Medical Journal* of June, 1867, and had therefore appeared more than a year before the analysis. My date of publication is consequently six months prior to the earliest date claimed by Prof. Schiff. But I can go back still farther, and show that earlier than June of 1867, most of my results had been communicated to the "Boston Society for Medical Observation." In fact, many

of the experiments had been completed in the autumn of 1866. However, as claims to priority in scientific discoveries must always be settled by the dates of publication, it is unnecessary to do more than to call attention to the date of publication of my original paper, to prove that, so far from having been anticipated by Prof. Schiff, I had, on the contrary, anticipated him by several months.—*New York Medical Journal.*

On the Administration of Ammonia by Inhalation. By J. H. H. Lewellin, M.R.C.S. Australia.—The idea of administering ammonia by inhalation occurred to Mr. Lewellin in the following manner:—He was called to see a patient who had been a hard drinker, and who had had a fit, followed by epistaxis and subsequent syncope. Mr. Lewellin thought the patient was dead, owing to his cadaverous appearance, and was preparing to inject some ammonia into the veins, as the power of swallowing seemed to be lost, when the thought struck him that the ammonia might be introduced by the pulmonary system, if the patient would inhale, as well as by the injection into the veins. He accordingly poured some liquor ammoniæ fortis on a handkerchief and applied it in the same way as chloroform is administered. The effect was immediate, and the pulse, which was before imperceptible, was now distinctly felt. In about twenty minutes after the commencement of the inhalation the patient opened his eyes and stared about him, and then fell back on his pillow and appeared dead, but on recommencing the inhalation he again revived. Mr. Lewellin, now fearing that bronchial irritation would ensue, discontinued the inhalation, but was compelled to resume it in consequence of the tendency to fainting. After about three hours' inhalation, the patient began to be sensible of the smell of ammonia. He inhaled altogether between twelve and fourteen drachms of liquor ammoniæ fortis in four hours. He eventually recovered without any bad symptoms. Mr. Lewellin used the same agent in another case, which was one of anæmia from excessive flooding, and was again successful. He suggests that when this method is adopted some precaution should be taken to prevent the vapor of ammonia from entering the nares, at the same time leaving those openings free.—*Australian Medical Gazette. British Med.-Chir. Review.*

A Case of Emphysema occurring during Labor. By Colin Mackenzie, M.D., New York.—Mrs. K., aged 26, was confined with her first child, April 11, 1871. Labor-pains began at 6, A.M. I saw the case at 10½, A.M., and found the lady in bed, pulse accelerated, but not more so than is usually observed during labor. Respiration normal; skin in good condition. On examination, found first vertex presentation. Labor progressed slowly but surely.

About 2½, P.M., just as the head was engaging the perinæum, my attention was called to a peculiar and sudden intense redness of the patient's face, which redness seemed to pass away somewhat during the interval between the pains. *Inspiration* was *forcible* and *quick*, with *spasmodic motion* of the *diaphragm*.

The pains were very hard and assisted very much by the patient. At about a quarter to 3, P.M., she complained between the pains, of a stiff feeling in her face and neck. The face continued to present, during the pains, the red and congested appearance, and the inspirations were still diaphragmatic. At about a quarter past 3, P.M., she was delivered of a living, medium-sized child. After the usual delay, the placenta came away, and the uterus contracted well.

The patient still complaining of stiffness of the face, I found it on examination swollen, but the congested condition gone. In feeling of the face and neck, I found crepitation and discovered emphysema, which occupied both sides of face, frontal and temporal regions, sides of neck, and down the sternum. There was no effusion of air on either side of the centre of the sternum.

On visiting the patient that evening, I found her the same, except the swelling was more painful. This condition existed the next day, but was less troublesome. On the evening of the second day, as the tenderness and swelling disappeared so slowly, I ordered the elastic collodion to be applied once a day.

On the sixth day, all tenderness and swelling had passed away, except at the edge of the sternum and clavicle, and by the eighth day after confinement this had gone. During its continuance there were no symptoms referable to it.

The emphysematous condition was caused undoubtedly by the rupture of one or more vesicles in the lungs from the spasmodic action of the diaphragm.

The case I should judge to be one of rare occurrence, as, from a careful examination

of many of the standard English and some of the German and French obstetrical works, I cannot find any mention whatever of emphysema occurring during parturition.

Happening as it might to any physician, and on reference to practical obstetrical works not receiving any assistance, he might produce a great amount of mischief and harm.

It is happily of rare occurrence, since many physicians of large obstetrical practice have never observed a case of this kind. * * * * —*Am. Jour. of Obstetrics.*

The Treatment of Traumatic Erysipelas by Spirits of Turpentine.—In an article in *Il Ippocratico*, recently, it is related that, a few years ago, Prof. Lücke proposed a new way of treating erysipelas. In nine cases cited by that author, he arrested the course of the complaint in two or three days. Borgien, Cœster, and quite recently Dr. Bonfigli (*Ippocratico*, 1871) made experiments with this method in traumatic erysipelas, and obtained excellent results. This method consists in dressing the region affected with erysipelas with oil of turpentine. In a few hours the œdema disappears, the redness becomes paler, and the fever diminishes; two or three days generally suffice completely to conquer the other symptoms. Dr. Lücke came to think of this application because, according to the reigning theories on the pathogeny of traumatic erysipelas, this complaint approaches septicæmia. Now, oil of turpentine is a complete poison to the organic matter which engenders infectious diseases; it destroys this as far as the skin, when it produces a specific inflammation. According to Hueter, diphtheria, like traumatic erysipelas, is characterized by the presence of organic round corpuscles, which are found in the liquids of the tissues; these corpuscles, which get into the blood and urine, are considered by Hueter as of the nature of *monas crepusculusis*, which is at once killed by essence of turpentine. Here is one case by Dr. Bonfigli, abbreviated: A young husbandman, æt 23, of good constitution, was suffering for some days from inflammation of the right nostril; at once he was taken with fever and shivering fits; his face became red and swollen; some phlectenular points arose here and there on the diseased region. Dr. Bonfigli had the parts dressed with oil of turpentine; on the next day, the œdema was gone, and the redness considerably lessened. However, the erysipelas had invaded the left side of the face and a part of the hairy scalp. Dr. Bonfigli continued the same dressing, and, thanks to this simple treatment, all the symptoms vanished, so that on the sixth day there was only a slight exfoliation noticeable of the epidermis.—*Cincinnati Lancet and Observer.*

Coxalgia.—Dr. Guersant (*Med. News and Library*), referring to the treatment of coxalgia, thus remarks in regard to abscesses: When the abscess becomes decidedly prominent, it is our duty to open it. As a general rule, we postpone this as late as possible, to avoid the exhaustion consequent on a long suppurative discharge. When we decide to open it, we sometimes have recourse to puncture with a long, flat trocar devised by M. Guérin, and to suction by means of a syringe, which may be screwed to the canula; sometimes to simple puncture, or the application of a drainage-tube, according to the method of M. Chassaignac. Sometimes the purulent collections emptied by the trocar do not fill up afresh. Most frequently the abscess is reproduced as before, or else the puncture becomes the seat of a fistulous tract. Advantage may be derived in such cases from iodine injections (one part of tincture of iodine to two parts of water), according to the suggestion of M. Boinet. The drainage-tube has the advantage over ordinary setons of allowing of detergent injections into the purulent collection, by adapting to it the canula with a syringe.—*N. Y. Med. Record.*

New English Hospital in Paris.—Sir Richard Wallace has established on a permanent basis the English hospital in Paris, which during the sieges was maintained at his cost in the Rue d'Aguesseau. Two months ago, the English patients remaining in that hospital, and about twenty of the wounded remaining in the ambulance adjoining, were transferred to a temporary hospital in a suburb of Paris. A new hospital has been established by Sir Richard Wallace, and will be opened on Oct 15th, when the English patients in the temporary hospital, and the two remaining siege-casualties—gun-shot fractures of the thigh—will be transferred to it. The hospital, which is situated in the Route de la Rivolte, will be called the "Hertford Hospital," and will contain thirty beds, and the medical staff will consist of Dr. Rose Cormack and Dr. Herbert. From the beginning of the rule of the Commune, Dr. Cormack has done most of the work in Sir Richard Wallace's ambulance and English Hospital.—*British Med. Journal.*

Medical Miscellany.

VERMONT MEDICAL JOURNAL.—Early in the year 1872, the publication of a bimonthly medical journal, under the title of *Vermont Medical Journal*, will be commenced at McIndoe's Falls, Vermont, by J. M. Currier, M.D. It will be conducted by the ablest physicians in the State. It is designed to make the work *entirely original*, embracing original articles, reports of county and district medical societies, hospital and clinical reports. Price of the volume of 400 pages, $5.00, in advance.

DRS. STÖMMER and Wiener, as quoted in the *Rundschau* for August, 1871, speak in favor of vaccine mixed with glycerine. The vaccine virus, when mixed with 3–4 times its bulk of glycerine, takes well, even after it has been kept for months, or even, according to Dr. Stömmer, for two years. The virus is received into a convenient dish and mixed by stirring or shaking, with three or four times its bulk of glycerine and water in equal parts.

THE DESCENT OF MAN.—*Blackwood's Magazine* has a poetical hit at Darwin's famous view, of which we extract a few stanzas:—

"Man comes from a mammal that lived up a tree,
And a great coat of hair on his outside had he,
Very much like the dreadnoughts we frequently see—
Which nobody can deny.

He had points to his ears, and a tail to his rump,
To assist him with ease through the branches to jump—
In some cases quite long, and in some a mere stump—
Which nobody can deny.

Women plainly had beards and big whiskers at first;
While the man supplied milk when the baby was nursed;
And some other strong facts I could tell—if I durst—
Which nobody can deny.

Yet I think that if Darwin would make a clean breast,
Some botanical views would be frankly confessed,
And that all flesh is grass would stand boldly expressed—
Which nobody can deny."

—*Medical and Surgical Reporter.*

INSUFFLATION OF THE TYMPANIC CAVITY.—Dr. Peter Allen has added a very simple modification to Politzer's process, which consists in replacing the tube which serves to carry the air into the Eustachian tube by a hollow rubber ball, which being pressed against the nares at the moment of deglutition and its contained air expressed, the air finds its way into the cavity of the tympanum without the necessity for the introduction of a sound.—*Medical Society of London.*

PRIZE ESSAYS.—In accordance with the will of the late Dr. Lacaze, a prize of 10,000 *frs.* is to be awarded by the Faculty of Medicine of Paris every second year to the best work on phthisis and on typhoid fever alternately. The first prize will be awarded at the end of the academical year 1871–2, for the best work on phthisis. Essays (with a distinguishing motto and the author's name in a sealed envelope), must be sent in before July 1st, 1872. The prize is open to foreigners.—*N. Y. Med. Record.*

PROF. T. GAILLARD THOMAS, having resigned his position on the staff of Bellevue Hospital, Prof. Edward G. Janeway has been appointed to fill the vacancy. The place thus made vacant by Prof. Janeway in the staff of the Charity Hospital has been filled by the appointment of Dr. William M. Chamberlain.—*Ibid.*

TO CORRESPONDENTS.—Communications accepted:—Cases of Fatal Otorrhœa.

BOOKS RECEIVED.—On the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys; also in certain other General Disorders. By Thomas Clifford Allbutt, M.D., Physician to the Leeds General Infirmary, &c. London and New York. 1871. Pp. 405.—Boylston Prize Essay, 1871. Diseases of the Skin: the Recent Advances in their Pathology and Treatment. By B. Joy Jeffries, A.M., M.D. Boston: Alexander Moore. 1871. Pp. 79.

PAMPHLETS RECEIVED.—The Prevention of Abscesses in Hypodermic Medication; with a Description of an Instrument for the Injection of Strychnia. By R. A. Vance, M.D., New York. Pp. 8.—The Clinical Thermometer, its Lessons and Teachings, &c. By Z. C. McElroy, M.D., Zanesville, Ohio. Pp. 17.—On Protoplasmic Life. By F. Crace Calvert, F.R.S., &c., London. Pp. 29.

MARRIED,—At Berlin, Prussia, Dr. F. I. Knight, of Boston, to Miss Louisa Armstead Appleton, formerly of Baltimore.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending Nov. 4, 1871.

Cities and Towns.	*No. of Deaths.*
Boston	79
Charlestown	12
Worcester	19
Lowell	10
Milford	4
Chelsea	5
Cambridge	18
Salem	11
Lawrence	11
Springfield	6
Lynn	10
Gloucester	6
Fitchburg	5
Newburyport	5
Somerville	3
Fall River	11
Haverhill	4
	219

Prevalent Diseases.	
Consumption	41
Pneumonia	16
Croup and Diphtheria	8
Scarlet fever	7

Lowell reports one death from smallpox.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Nov. 4th, 79. Males, 39; females, 40. Apoplexy, 1—inflammation of the bowels, 1—disease of the bladder, 1—bronchitis, 2—disease of the brain, 1—cancer, 2—cholera infantum, 1—cholera, 1—consumption, 14—convulsions, 1—croup, 1—cyanosis, 1—debility, 2—diarrhœa, 2—dropsy, 1—dropsy of brain, 3—diphtheria, 2—eczema, 1—scarlet fever, 2—typhoid fever, 1—gangrene, 1—disease of the heart, 5—hæmorrhage, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 3—marasmus, 3—old age, 1—paralysis, 2—pleurisy, 1—privation, 1—premature birth, 3—pyæmia, 1—scalded, 1—disease of the stomach, 1—tetanus, 1—tumor, 2—whooping cough, 1—unknown, 4.

Under 5 years of age, 31—between 5 and 20 years, 3—between 20 and 40 years, 18—between 40 and 60 years, 10—above 60 years, 17. Born in the United States, 53—Ireland, 17—other places, 9.